What is claimed is:

1. A copolymer having an elongation of at least 150%, comprising a total of at least 90% by weight of two principal monomers, wherein one principal core monomer is an aryl acrylic hydrophobic monomer. The chemical structures of these aryl acrylic monomers are shown in figure 1. The other monomer, present in an amount not greater than 10% of the aryl acrylic hydrophobic monomer, is a cross-linking monomer.
2. UV-light absorbing, and/or other light absorbing components will be added into the core monomer when situation required.
3. After core polymers have been processed to the forms and shapes required for various medical devices for eye surgeries, a thin layer of biocompatible hydrophilic polymer would be processed onto the core acrylic polymer. The general chemical structures of these biocompatible hydrophilic monomers are shown in figure 2.
4. The implants can be prepared by individually machining or mass-produced by injection molding for general usage of patients.
5. These ophthalmic polymer materials, which have high refractive index and biocompatible surface that are to be used for foldable Intraocular Lenses (IOLs) as well as other ophthalmic devices, such as contact lenses, keratoprostheses, and corneal rings or inlay. Also, other eye implant surgeries under development.
6. The bio-compatible surface processed copolymers can be activated using conjugation chemistries then enable the covalently attachment of various commercial available drugs for medical applications. The medical devices include but not limited to IOL's, catheters, vascular graft or stent, artificial joint, medical devices for blood oxygenation, dialysis, coronary artery implant, femorofemoral artery implant, femoral-poplitial artery implant, femoro-tibial artery implant, fibular artery implant, plantar artery implant, dorsalis-pedis artery implant, arterial-venous fistulae, and venous implant, etc.
7. The drugs of claim 6 can be anti-coagulant drugs, anti-cancer drugs, Vascular Endothelial Growth Factor (VEGF) and/or Platelet Derived Growth Factor

(PDGF) which include, but not limited to heparin, Taxol, and wherein said angiogenesis factor is selected from the group consisting of VEGF, VEGF 2, bFGF, VEGF121, VEGF165, VEGF189, VEGF206, PDGF, PDAF, TGF-B, PDEGF, PDWHF, etc.

8. The bio-compatible surface processed copolymers can covalently attached with cells from specific tissue or cell lines to create special biological effects, such as endothelium cells to reduce blood activation, and other unwanted or harmful biological activities.